



1375, and Supplement N° 2894.

# SPECIFICATION

OF

DUNCAN MACKAY.

BLISTERS.

LONDON:

BY GEORGE E. LYE AND WILLIAM SCOTTISWOODE,

PRINTERS TO HER MAJESTY'S MOST EXCELLENT MAJESTY:

AND AT THE GREAT SEAL PATENT OFFICE,

IN ST. MARTIN'S LANE, HOLBORN.

1874.





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A.D. 1873, 3rd SEPTEMBER. N° 2894.

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## Blisters.

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**LETTERS PATENT** to Duncan Mackay, Doctor of Medicine, of 1, Inglis Street, Inverness, in the County of Inverness, for the Invention of  
“ **A NEW OR IMPROVED MANUFACTURE OF OMPHALIC BLISTERS.**”

Sealed the 27th February 1874, and dated the 3rd September 1873.

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**PROVISIONAL SPECIFICATION** left by the said Duncan Mackay at the Office of the Commissioners of Patents, with his Petition, on the 3rd September 1873.

I, DUNCAN MACKAY, Doctor of Medicine, of 1, Inglis Street, 5 Inverness, in the County of Inverness, do hereby declare the nature of the said Invention for “ **A NEW OR IMPROVED MANUFACTURE OF OMPHALIC BLISTERS,**” to be as follows:—

Blisters as hitherto manufactured are prepared by taking the proper pharmaceutical preparation for blisters in a plastic state, and spreading 10 the same in one mass over the surface of the material for the plaster, thus producing a continuous vesicating appliance which is found in many cases to be disadvantageous.



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*Mackay's Improvements in the Manufacture of Omphalic Blisters.*

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Now I manufacture blisters which I term omphalic from their resemblance to the bosses of a shield by substantially the following method, namely:—By means of a water bath I melt a small quantity only (in comparison with the quantity commonly used for a blister), and this I apply to the surface of the plaster, not by spreading it thick with 5 the thumb as at present, but by brushing it on gummed tissue paper which is grease proof; then I apply a sheet of tissue paper, which should be plain coloured, to the surface of the paper on which the blistering preparation is spread, and iron them together so as to cause them to adhere closely, and I cut out with a punch or similar instru- 10 ment small pieces ready for use. Each of these pieces will consist of the before-mentioned gummed tissue paper and plain tissue paper with the blistering plaster between them. The gummed surface of these pieces is thus different and properly of a different colour to the other surface, such gummed surface being made to adhere to a kind of 15 prepared paper; and the details of the mode which I prefer to use in making the same is as follows:—I take tissue or any other paper, which I coat with a preparation made by mixing one part turpentine with a half pint (by measure) of castor oil. When the paper thus coated is partially dry I press it between sheets of blotting paper, and I then coat 20 it with a varnish composed of rosin in methyated spirits of wine. When the paper is dry after the varnish has been applied I coat it on both sides with gum, and when dry I cut the paper thus prepared into pieces, say about half a foot square; I then take a piece of tin of the same size as the paper, such tin being perforated with small holes in regular order. 25 The prepared paper being semi-transparent is then placed over the tin, and the spots or pieces of blistering material (the gummed surface of which having been previously damped) are placed over each hole or perforation in the tin on to the prepared paper to which they adhere, and after the pieces or spots have all been put on the paper the whole 30 is inverted on dry blotting paper and pressed so as to make the gummed surface of the spots adhere to the gummed surface of the paper. The spotted sheets are then laid aside to dry, and when dry are ready for use. Plasters thus manufactured possess much superior qualities to those manufactured by the ordinary methods, being more effective for 35 vesicating and yet being more bearable by the patient.

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*Mackay's Improvements in the Manufacture of Omphalic Blisters.*

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**SPECIFICATION** in pursuance of the conditions of the Letters Patent, filed by the said Duncan Mackay in the Great Seal Patent Office on the 2nd March 1874.

**TO ALL TO WHOM THESE PRESENTS SHALL COME, I, DUNCAN**  
5 **MACKAY**, Doctor of Medicine, of 1, Inglis Street, Inverness, in the County of Inverness, send greeting.

**WHEREAS** Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Third day of September, in the year of our Lord One thousand eight hundred and seventy-three, in the  
10 thirty-seventh year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Duncan Mackay, Her special licence that I, the said Duncan Mackay, my executors, administrators, and assigns, or such others as I, the said Duncan Mackay, my executors, administrators, and assigns, should at any time agree with, and no  
15 others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "**A NEW OR IMPROVED MANUFACTURE OF OMPHALIC BLISTERS**," upon the condition (amongst others)  
20 that I, the said Duncan Mackay, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within  
25 six calendar months next and immediately after the date of the said Letters Patent.

**NOW KNOW YE**, that I, the said Duncan Mackay, do hereby declare the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the  
30 following statement:—

Blistering plasters as hitherto manufactured are prepared by taking the proper pharmaceutical preparation for blisters in a plastic state and spreading the same in one mass over the surface of the material for the plaster which produces a continuous vesicating appliance.

35 Now I manufacture blisters which I term omphalic from their resemblance to the bosses of a shield by substantially the following



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*Mackay's Improvements in the Manufacture of Omphalic Blisters.*

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method, namely:—By means of a water bath or other equivalent appliance I soften a sufficient quantity of the blistering plaster and apply it to the surface of gummed tissue paper, spreading it with a spatula. I prefer that the gummed tissue paper should be prepared in the manner herein-after described, then I apply a sheet of black tissue 5 paper to the surface, and press it down so as to cause the two surfaces to adhere closely, and I cut out with a punch or similar instrument small or large pieces ready for use; each of these pieces will consist of the before-mentioned gummed tissue paper and black tissue paper with the blistering plaster between them. 10

The foregoing statements particularly describe and ascertain the nature of the said Invention, and I will now further and particularly describe and ascertain in what manner the same is to be performed, that is to say:—I make omphalic blisters by attaching two or more patches or spots of blistering plaster or other blistering material to one piece of 15 prepared paper or other suitable substance; or by producing two or more patches or spots of a blistering agent on a single piece of any material for the purpose of making a corresponding number of vesicles or blisters on the human skin.

The substance to which the patches or spots are usually attached is 20 white tissue paper prepared in the following manner:—The paper having been cut into pieces, say for instance six inches square, is brushed over on both sides with a saturated solution of rosin in spirits of wine and quickly dried over flame; it is then brushed on both sides with gum arabic solution and hung up to dry. The prepared paper is laid on a 25 piece of sheet zinc or other suitable material of the same size perforated with holes at regular intervals, and is kept fixed with springs. The material being transparent the holes in the zinc are seen through it, and are a guide to the distributor of the discs or patches.

The latter are by preference prepared as follows:—The ordinary 30 blistering plaster of the pharmacopeia is thinly spread on sheets of the same kind as those the preparation of which has been described above, and covered with black tissue paper. The black tissue is well pressed down on the plastered surface so as to cause it to adhere. With a punch, pliers, or wad cutter, pieces or discs of a suitable size are cut out, and 35 having been distributed on a piece of wetted cotton cloth with their gummed surfaces next it, they are picked up with a spatula and placed

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*Mackay's Improvements in the Manufacture of Omphalic Blisters.*

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on the prepared sheet stretched on the perforated zinc or suitable material. The sheet with discs attached is then taken off the zinc and pressed between pieces of bibulous paper so as to remove moisture and cause them to adhere firmly. The sheets when quite dry are each folded  
5 between pieces of white tissue paper and enclosed in a suitable envelope.

Having now particularly described and ascertained the nature and object of my said Invention, and in what manner the same is to be performed or put in practice, it must be understood that I do not limit or confine myself to the use of exactly the same process or mode of manu-  
10 facture herein-before described which I may vary as circumstances may require, and I hereby claim the Invention of "New or Improved Manufacture of Omphalic Blisters," as herein-before described, the main feature or principal distinctive characteristic whereof is so manufacturing or making such omphalic blisters or plasters that the blistering portions  
15 thereof shall be scattered over the surface, in manner herein-before described.

In witness whereof, I, the said Duncan Mackay, have hereunto set my hand and seal, this Twenty-seventh day of February, in the year of our Lord One thousand eight hundred and seventy-  
20 four.

DUNCAN MACKAY, M.D. (L.S.)

Witness,

ALEX<sup>R</sup>. MUNRO,  
52, Castle Street,  
25 Inverness.

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LONDON:

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